

REMARKS

I. Status Summary

Claims 1-8, 11-14 and 16 are all the claims pending in the application. By way of this Amendment, Applicant cancels claims 9, 10 and 15, and amends claims 1, 11 and 16.

II. Claim Rejections - § 112

Claims 1-16 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant amends claims 1, 13 and 15 to overcome the rejection.

III. Claim Objections

Claim 1 is objected to because it is unclear where the preamble ends due to the absence of a transitional phrase. Applicant amends claim 1 to remove any ambiguities.

IV. Claim Rejections - § 103

Claims 1-5, 8-12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,836,299 to Kwon in view of U.S. Patent No. 5,565,275 to Schmidt et al.

Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kwon in view of Schmidt and U.S. Patent No. 5,085,005 to Yasukawa et al.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kwon and Yasukawa as applied to claims 6 and 13, and further in view of U.S. Patent No. 6,306,514 to Weikel et al.

A. Independent Claims 1, 13 and 16

Applicant respectfully submits that the combination of cited references fails to teach or suggest the claimed invention according to amended claims 1 and 16.

The prior art fails to suggest the combination of EPDM and a mineral filler based upon quartz & kaolinite (without feldspar) in a dispenser containing HFC-134 and/or HFC-227 propellant gas.

In particular, while “the selection of a known material based on its suitability for its intended use can support a conclusion of prima facie obviousness” (see Office Action at page 4, lines 3-4), in the instant case, there is no evidence that the material of the claimed mineral filler would have been suitable for the intended use of a HFC propellant gas.

Kwon discloses a valve having EPDM seals together with HFC propellants. However, the mineral filler in Kwon is not the same as the claimed invention. That is, Kwon fails to teach or suggest the use of a mineral filler based upon quartz & kaolinite and without feldspar.

Sillitin is an example of mineral filler that can be used in the claimed invention. The question is, thus, whether it would have been obvious to use the claimed mineral filler in a valve having EPDM seals for HFC propellants.

Schmidt discloses the existence of Sillitin with EPDM. However, Sillitin is never used in contact with HFC propellants in the prior art.

The question is not if Sillitin was known at the filing date of the present invention, but if a person skilled in the art of valve seals, trying to improve the valve seal’s properties of Kwon, would have had any rationale to replace the silica described in Kwon with Sillitin.

Schmidt does not provide any rationale to substitute the silica with Sillitin.

In particular, Schmidt does not provide information that Sillitin may improve specific properties of valve seals when used in aerosol devices containing HFC propellants.

The fact that the EPDM seal is in contact with the HFC propellant gas is very important, because HFC propellant gas is very aggressive and thus has a great influence on the seal's properties.

Thus, the fact that Sillitin can be used together with EPDM out of contact with HFC propellants (like in Schmidt) does not mean that Sillitin can automatically be used together with EPDM when in contact with HFC propellants. The skilled person, when trying to improve the valve seal's properties of Kwon, would necessarily search for a solution in the prior art related to HFC propellant gas due to the aggressive nature of the HFC propellant gas.

Furthermore, there is no indication in any of the other prior art that replacement of silica in an EPDM seal by the claimed mineral filler would improve the seal's properties when used with HFC propellants.

Yasukawa and Anderson do not make up for the deficiencies of Kwon and Schmidt. In particular, Anderson does not disclose any more features than Kwon. Anderson describes a valve having seals comprising EPDM and HFC propellant gas, but the EPDM seals do not comprise the claimed mineral filler.

It is thus not obvious to replace the known mineral fillers, such as silica, with the claimed mineral filler in a valve having EPDM seals for HFC propellant gas.

As such, Applicant's claims are directed to a novel and nonobvious combination of EPDM and mineral filler for an HFC propellant gas, and should be found patentable.

In view of the foregoing, Applicant respectfully submits that claims 1 and 16 are patentable.

Independent claim 13 is patentable for similar reasons to claims 1 and 16. Namely, there is no support that one of ordinary skill in the art would have known to substitute silica with the claimed mineral filler, for a valve having EPDM seals and HFC propellant gas.

B. Dependent Claims

The remaining rejections are directed to the dependent claims. These claims are patentable for at least the same reasons as the independent claims discussed above, by virtue of their dependency therefrom.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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